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BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, DC 20554

JUN - 4 1997

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of

Amendment of Part 90 of the Commission's )  
Rules To Provide for the Use of the 220-222 MHz ) PR Docket No. 89-552  
Band by the Private Land Mobile Radio Service ) RM-8506

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Implementation of Sections 3(n) and 332 of the )  
Communications Act )  
Regulatory Treatment of Mobile Services ) GN Docket No. 93-252

Implementation of Section 309(j) of the ) PP Docket No. 93-253  
Communications Act -- Competitive Bidding )

**OPPOSITION AND COMMENTS  
OF ARCH COMMUNICATIONS GROUP, INC.**

Pursuant to Section 1.429 of the Commission's rules, 47 C.F.R. § 1.429, Arch Communications Group, Inc. ("Arch"),<sup>1</sup> submits the following comments in response to petitions for reconsideration filed in the above-referenced dockets.

**I. THE COMMISSION SHOULD EXEMPT PAGING OPERATIONS FROM  
THE SPECTRUM EFFICIENCY STANDARDS**

The Commission established rules to govern the future operation and licensing of the 220-222 MHz service in the *Third R&O*.<sup>2</sup> As part of the *Third R&O*, the Commission

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<sup>1</sup> Arch is a leading provider of paging services with over 3 million pagers currently in service. Arch operates in more than 40 states, and in 80 of the 100 largest markets in the United States.

<sup>2</sup> *In the Matter of Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service, Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Implementation of Section 309(j) of the*

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adopted spectrum efficiency standards for the 220 MHz band, which require licensees to employ equipment for data communications that operates at a data rate of at least 4,800 bits per second per 5 kHz of channel bandwidth (or .96 bits per second per hertz).<sup>3</sup>

ComTech Communications, Inc. ("ComTech") filed a Petition for Reconsideration ("Petition") of the *Third R&O*, in which it urged the Commission, among other things, to exempt paging operations in the 220 MHz band from the spectral efficiency standard.<sup>4</sup> Arch concurs with ComTech that the efficiency standard has the effect of preventing one-way paging in the 220 MHz band in that it is almost four times more efficient than one-way paging's current state of the art maximum data rate of 6400 bits per second (or .256 bits per second per hertz) using the most efficient technology commercially available.<sup>5</sup> Such a result would directly contradict the Commission's decision in the *Third R&O* to allow 220 MHz licensees to operate paging systems on a primary basis to enable them "to compete more effectively in the wireless marketplace."<sup>6</sup>

Glenayre Technologies, Inc. ("Glenayre"), one of the world's largest manufacturers of paging infrastructure equipment, confirms that there is no data equipment currently

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<sup>2</sup> (...continued)  
*Communications Act – Competitive Bidding*, PP Docket No. 89-552, RM-8506, GN Docket No. 93-252 and PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 62 Fed. Reg. 15978 (1997) ("*Third R&O*").

<sup>3</sup> *Id.* at ¶¶ 113-116.

<sup>4</sup> *See* ComTech Petition at pp. 6-10.

<sup>5</sup> *Id.* at pp. 6-7.

<sup>6</sup> *Third R&O* at ¶ 95.

available meeting the Commission's 220 MHz data efficiency standard.<sup>7</sup> Glenayre correctly points out that "there is little value in setting a standard today which cannot be achieved for several years for a service which is operating today."<sup>8</sup> Glenayre proposes, however, that the Commission should phase in higher efficiency standards for paging systems in the 220 MHz band by adopting the current one-way paging standard of .256 bits per second per hertz immediately, with a standard of 1 bits per second per hertz being phased in after five years, and 2 bits per second per hertz after 10 years.<sup>9</sup> Arch does not agree with this proposal. Such increased standards would require paging operators to upgrade or completely replace their equipment at the end of the five- and ten-years periods -- that is, before the end of the useful life of the equipment. The expenses created and resources required by such transitions would hardly be in the public interest.

As ComTech points out, moreover, a paging carrier operating at the current .245 bits per second per hertz standard (which fails to meet the Commission's spectral efficiency standard for 220 MHz) already could serve several hundred thousand customers in a market on 25 kHz, whereas a five-channel trunked, two-way voice dispatch system meeting the spectral efficient standard of one voice channel per 5 kHz could realistically serve only several hundred customers in the same geographic area.<sup>10</sup>

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<sup>7</sup> See Petition for Partial Reconsideration of Glenayre at p 5.

<sup>8</sup> *Id.* at p. 7.

<sup>9</sup> *Id.* at pp. 5-6.

<sup>10</sup> ComTech Petition at pp. 9-10.

For the same reasons, Arch opposes Rush Network, Corp.'s ("Rush") proposal to revise the efficiency standard to require licensees to employ equipment for data communications that operates at a data rate of at least 4,800 bits per second per 6.25 kHz of channel bandwidth (or .768 bits per second per hertz) by the year 2005.<sup>11</sup> Arch opposes any increase in the maximum data rate for paging operations in the 220 MHz band.

## **II. THE COMMISSION SHOULD MODIFY THE ERP LIMITS FOR 220 MHz LICENSEES TO CONFORM TO THE ERP LIMITS CURRENTLY USED FOR VHF PAGING**

Arch supports ComTech's and Glenayre's proposals to conform the Commission's maximum permissible effective radiated power ("ERP") for 220 MHz nationwide stations to those found in the Commission's rules with regard to paging facilities in the VHF band.<sup>12</sup> Specifically, Arch urges the Commission to adopt provisions similar to those in Section 22.535 of its rules, which allow paging stations in the VHF band to operate with an ERP of 1400 watts provided the transmitter is located at least 5 kilometers from a fixed adjacent channel system.<sup>13</sup>

## **III. CONCLUSION**

Arch requests that the Commission exempt paging operations in the 220 MHz

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<sup>11</sup> See Petition for Reconsideration and Petition for Clarification of Rush at pp. 3-4.

<sup>12</sup> See Petitions of ComTech at pp. 4-6 and Glenayre at pp. 2-5.

<sup>13</sup> See 47 C.F.R. § 22.535.

**band from the spectrum efficiency standards and modify the maximum ERP limits to conform them to rules governing VHF paging.**

Respectfully submitted,

**Arch Communications Group, Inc.**

  
By: Paul H. Kuzia

Executive Vice President, Technology  
and Regulatory Affairs

June 4, 1997

**CERTIFICATE OF SERVICE**

I, Shelia L. Smith, hereby certify that on this 4th day of June 1997, copies of the foregoing Opposition and Comments of Arch Communications Group, Inc. in PR Docket No. 89-552, RM-8506, GN Docket No. 93-252 and PP Docket No. 93-253 were served on the following by first-class, postage-prepaid mail to:

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